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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,826	03/06/2006	Kenichi Miyoshi	009289-06115	2110

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EXAMINER

BERHANE, YOSIEF H

ART UNIT	PAPER NUMBER
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2467

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/567,826	Applicant(s) MIYOSHI, KENICHI	
	Examiner YOSIEF BERHANE	Art Unit 2467	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-23 and 26 is/are allowed.
- 6) ☒ Claim(s) 21, 24, 25 and 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>01/08/2010</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. **RESPONSE TO ARGUMENTS:**
2. On page 8 of applicant's response, regarding Claim 22, applicant argues that “a base station apparatus that adds a transmission delay to a speech packet to be received in a communication terminal apparatus to which an amount of data exceeding a reference data amount is sent”.
3. Further, on page 8, still regarding claim 22, applicant argues that the cited reference do not disclose “setting a reference data amount according to the priority of a communication terminal apparatus”
4. **The applicant’s arguments are persuasive, and claims 22-23 and 26 are now in condition for allowance.**
5. On page 7 of applicant’s response, regarding claim 21, applicant argues that “the applied references do not disclose the claimed subject matter of detecting, as a speech packet, a transmission packet generated in a generation period equal to or less than a threshold.”
6. **The applicants arguments are persuasive but moot in light of new rejection**

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
8. (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
9. **Claims 21 and 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Publication **2004/0022237** to Elliott et al. (hereinafter Elliott) and Publication **2003/0202475** to Chen et al. (hereinafter Chen) as well as Publication **2002/0097679** to Berenbaum.
10. **As per claim 21 and 25**, Elliot teaches a base station apparatus that transmits a speech packet and a normal packet other than the speech packet on a packet channel, the base station apparatus comprising (Paragraph 0030, Elliott discloses that gateway site (claimed base station) transmits IP packets (claimed packet channel) which includes voice (claimed speech packet) and data (claimed normal packet) traffic):
11. a detecting section that detects a type of a transmission packet (Paragraph 0941, Elliott discloses a data detection process to detect the media type of the call traffic. The media type of the call traffic can include voice and data);
12. Elliott does not disclose expressly: a delay section that adds a transmission delay to the speech packet transmitted on the packet channel to degrade the quality of the speech packet and that does not add a transmission delay to the normal packet transmitted on the packet channel to maintain the quality of the normal packet.

13. Chen discloses, in Paragraph 0049, RLP/data service data (claimed normal packet) is given priority over voice (claimed speech packet), since voice is dimmed (claimed degrade quality) whenever RLP data is present, which may have negative impact on voice quality. Note, in paragraph 0008, Chen discloses that a dim command is issued to reduce the rate (claimed add transmission delay) of the variable-rate data. As Chen further specifies in paragraph 0028, variable data rate may be voice (claimed speech packet), and data services data/RLP data may be IP (claimed normal packet). Note, The RLP data is given priority, thus a transmission delay is not added to the RLP data (claimed normal packet).
14. Elliot and Chen are analogous art because they are from the same field of endeavor dealing specifically with communicating voice and data traffic over a shared channel.
15. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the system of Elliot by adding a transmission delay to voice to degrade the quality, and not adding a transmission delay to a normal packet to maintain the quality.
16. The rationale for doing so would have been to providing flexible prioritized services and reliable communication networks by balancing the quality of variable-rate data signal and maintaining data services (Paragraph 0008, Chen).
17. Therefore, it would have been obvious to combine Chen with Elliot for the benefit of providing flexibility and reliability in a shared communication network, to obtain the invention as specified in claim 21 and 25.

18. The combination of Elliot and Chen do not disclose expressly: the detecting section detects the type based on a generation period of the transmission packet and detects the transmission packet generated in the generation period equal to or less than a threshold, as the speech packet.
19. Paragraph 0040, Berenbaum discloses that in an input controller refers to the data period detector, data rate detector and QoS table to determine if a packet is part of a voice stream or data stream based on rate (claimed generation period) and periodicity. Further, as disclosed in paragraph 0009, Unlike data streams, voice streams tend to use "short" packets which are transmitted at a relatively low constant bit rate, e.g., less than 400 bytes and less than 100 kbps, where as further disclosed in paragraph 0058, the input controller determines if an Ethernet packet is "short". Thus if an Ethernet packet is determined to be transmitted less than 100kbps (claimed generation period less then or equal a threshold) then the packet is determined to be a voice packet. Also see paragraph 0067-0069.
20. Berenbaum, Elliot and Chen are analogous art because they are from the same field of endeavor dealing specifically with communicating voice and data traffic over a shared channel
21. At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the combination of Elliot and Chen by detecting a speech packet based on a generation period being less then a threshold, as suggested by Berenbaum
22. The rationale for doing so would have been to enhance the quality of service for communicating data with varying priority in over a network (paragraph 0017, Berenbaum)
23. Therefore it would have been obvious to combine Berenbaum with Elliot and Chen for the benefit of enhancing quality, to obtain the invention as specified in claim 21 and 25.

24. **Claims 24 and 27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Elliott, Chen, Berenbaum as well as. Patent **4,052,568** to Jankowski
25. **As per claim 24 and 27**, Elliot teaches a base station apparatus that transmits a speech packet and a normal packet other than the speech packet on a packet channel, the base station apparatus comprising (Paragraph 0030, Elliott discloses that gateway site (claimed base station) transmits IP packets (claimed packet channel) which includes voice (claimed speech packet) and data (claimed normal packet) traffic):
26. a detecting section that detects a type of a transmission packet (Paragraph 0941, Elliott discloses a data detection process to detect the media type of the call traffic. The media type of the call traffic can include voice and data);
27. Elliott does not disclose expressly: a delay section that adds a transmission delay to the speech packet transmitted on the packet channel to degrade the quality of the speech packet and that does not add a transmission delay to the normal packet transmitted on the packet channel to maintain the quality of the normal packet.
28. Chen discloses, in Paragraph 0049, RLP/data service data (claimed normal packet) is given priority over voice (claimed speech packet), since voice is dimmed (claimed degrade quality) whenever RLP data is present, which may have negative impact on voice quality. Note, in paragraph 0008, Chen discloses that a dim command is issued to reduce the rate (claimed add transmission delay) of the variable-rate data. As Chen further specifies in paragraph 0028, variable data rate may be voice (claimed speech packet), and data services data/RLP data may be IP (claimed normal packet). Note, The RLP data is given priority, thus a transmission delay is not added to the RLP data (claimed normal packet).

29. Elliot and Chen are analogous art because they are from the same field of endeavor dealing specifically with communicating voice and data traffic over a shared channel.
30. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the system of Elliot by adding a transmission delay to voice to degrade the quality, and not adding a transmission delay to a normal packet to maintain the quality.
31. The rationale for doing so would have been to providing flexible prioritized services and reliable communication networks by balancing the quality of variable-rate data signal and maintaining data services (Paragraph 0008, Chen).
32. Therefore, it would have been obvious to combine Chen with Elliot for the benefit of providing flexibility and reliability in a shared communication network, to obtain the invention as specified in claim 24 and 27.
33. The combination of Elliot and Chen do not disclose expressly: the detecting section detects the type based on a generation period of the transmission packet and detects the transmission packet generated in the generation period equal to or less than a threshold, as the speech packet.

34. Paragraph 0040, Berenbaum discloses that in an input controller refers to the data period detector, data rate detector and QoS table to determine if a packet is part of a voice stream or data stream based on rate (claimed generation period) and periodicity. Further, as disclosed in paragraph 0009, Unlike data streams, voice streams tend to use "short" packets which are transmitted at a relatively low constant bit rate, e.g., less than 400 bytes and less than 100 kbps, where as further disclosed in paragraph 0058, the input controller determines if an Ethernet packet is "short". Thus if an Ethernet packet is determined to be transmitted less than 100kbps (claimed generation period less then or equal a threshold) then the packet is determined to be a voice packet. Also see paragraph 0067-0069.
35. Berenbaum, Elliot and Chen are analogous art because they are from the same field of endeavor dealing specifically with communicating voice and data traffic over a shared channel
36. At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the combination of Elliot and Chen by detecting a speech packet based on a generation period being less then a threshold, as suggested by Berenbaum
37. The rationale for doing so would have been to enhance the quality of service for communicating data with varying priority in over a network (paragraph 0017, Berenbaum)
38. Therefore it would have been obvious to combine Berenbaum with Elliot and Chen for the benefit of enhancing quality of service, to obtain the invention as specified in claim 21.
39. Although the combination of Berenbaum, Elliot and Chen disclose a generation period (Paragraph 0009, Berenbaum discloses that voice streams are transmitted at a relatively low constant bit rate, e.g., less than 400 bytes and less than 100 kbps (claimed generation period))

40. The combination of Berenbaum, Elliot and Chen do not disclose expressly: detects the transmission packet close to a speech packet encoding period, as the speech packet.
41. Jankowaski discloses, in Col. 1, lines 37-44, a detector having a fixed threshold level to compare digitally encoded samples (claimed encoding period) of a signal on a channel with the fixed threshold level. If the samples of the signal are above the threshold level, it is assumed the signal represents voice. If the samples of the signal are equal to or below the threshold level, it is assumed that the signal represents noise
42. Elliot, Chen and Jankowaski are analogous art because they are from similar problem solving areas dealing specifically with detecting and processing a type of received digital communication.
43. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify combination of Elliot and Chen by detecting a speech packet by using a speech packet encoding period, as suggested by Jankowaski.
44. The rationale for doing so would have been to provide sufficient level of service in a network by utilizing the ability to recognize speech thereby improving communication performance (Col. 1, lines 24 -34, Jankowaski).
45. Therefore, it would have been obvious to combine Jankowaski with Chen and Elliot for the benefit of providing improved communication performance in a communication system, to obtain the invention as specified in claim 24 and 27.

Allowable Subject Matter

46. Independent **claim 22 and 26** are allowed.
47. The following is a statement of reasons for the indication of allowable subject matter:
48. **Regarding Claims 22 and 26**, none of the prior art made of record teaches or fairly suggests the limitation regarding "the delay section adds the transmission delay to the speech packet according to a priority of a communication terminal apparatus receiving the speech packet and adds the transmission delay to the speech packet to be received in a communication terminal apparatus to which an amount of data exceeding a reference data amount is sent, the reference data amount being sent per the priority" in combination with the remaining limitations of the claim. It would not have been obvious at the time of the invention to combine the aforementioned limitations with the references of record.
49. Dependent **claims 23** is allowed by virtue of depending from allowable independent **claim 22**.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yosief Berhane whose telephone number is (571) 270-7164. The examiner can normally be reached at 9:00-6:00 Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pankaj Kumar can be reached at (571) 272-3011. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/YOSIEF BERHANE/

Examiner, Art Unit 2467

/Hong Cho/

Primary Examiner, Art Unit 2467